

CLAIMS

WHAT IS CLAIMED IS:

1. A method for passively immunizing an individual for treatment of hepatitis C virus (HCV) infection comprising administering to the individual an antibody composition comprising an antibody capable of binding to a motif comprising an amino acid sequence

aa1-aa2-aa3-aa4-aa5-aa6 (SEQUENCE NO. 1)

wherein:

aa1 is S, G, A, D, K, R or T;

10 aa2 is L, F, I, M or W;

aa3 is F or L;

aa4 is any amino acid;

aa5 is any amino acid; and

aa6 is G or A.

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2. The method of claim 1 wherein the amino acid sequence further comprises an additional amino acid aa7 attached to aa6, wherein aa7 is A, P, or S.

3. The method of claim 1 wherein:

20 aa1 is S or G;

aa2 is L or F;

aa3 is F; and

aa6 is G.

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4. The method of claim 3, wherein the amino acid sequence further comprises an additional amino acid aa7 attached to aa6, wherein aa7 is A or P.

5. The method of claim 4 wherein aa1 is S, aa2 is L and aa7 is A.

6. The method of claim 1 wherein the antibody is a monoclonal antibody.

7. The method of claim 1 wherein the antibody composition is obtained by immunizing another individual with a carrier-conjugated peptide comprising the motif.

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8. The method of claim 7 wherein the carrier-conjugated peptide is a peptide from the E2HV region of HCV having from about 10 to about 20 amino acid residues.

10 9. The method of claim 7 wherein the carrier conjugated peptide is a peptide from the E2HV region of HCV having from about 20 to about 31 amino acid residues.

15 10. The method of claim 9 wherein the carrier-conjugated peptide is a 30-mer peptide from the E2HV region of HCV1.

11. The method of claim 7 wherein the antibody composition is an Ig fraction.

20 12. The method of claim 11 wherein the Ig fraction contains IgG.

13. An antibody capable of recognizing an antigenic determinant which comprises the amino acid sequence

25 wherein:

aa1 is S, G, A, D, K, R or T;

aa2 is L, F, I, M or W;

aa3 is F or L;

aa4 is any amino acid;

aa1-aa2-aa3-aa4-aa5-aa6 (SEE INVD. 1)

aa5 is any amino acid; and
aa6 is G or A.

14. The antibody of claim 13 wherein the the amino acid sequence further
5 comprises an additional amino acid aa7 attached to aa6, wherein aa7 is A, P, or S.

15. The antibody of claim 13 wherein:

aa1 is S or G;

aa2 is L or F;

10 aa3 is F; and

aa6 is G.

16. The antibody of claim 15, wherein the amino acid sequence further
comprises an additional amino acid aa7 attached to aa6, wherein aa7 is A or P.

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17. The antibody of claim 16 wherein aa1 is S, aa2 is L and aa7 is A.

18. The antibody of claim 13 wherein the antibody is a monoclonal antibody.

19. The antibody of claim 14 wherein the antibody is a monoclonal antibody.

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20. The antibody of claim 17 wherein the antibody is a monoclonal antibody.

21. An immunogenic polypeptide comprising a motif characterized by

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wherein.

aa1 is S, G, A, D, K, R or T;

aa2 is L, F, I, M or W;

aa3 is F or L;

aa1-aa2-aa3-aa4-aa5-aa6 (SEQ ID NO: 1)

aa4 is any amino acid;
aa5 is any amino acid; and
aa6 is G or A,
provided that the motif is not contained within a 31 amino acid sequence of a
5 naturally-occurring E2HV domain of an HCV isolate known as of May 12, 1993.

22. The immunogenic polypeptide of claim 21 wherein the amino acid
sequence further comprises an additional amino acid aa7 attached to aa6, wherein aa7
is A, P, or S.

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23. The immunogenic polypeptide of claim 21 wherein:

aa1 is S or G;

aa2 is L or F;

aa3 is F; and

15

aa6 is G.

24. The immunogenic polypeptide of claim 23, wherein the amino acid
sequence further comprises an additional amino acid aa7 attached to aa6, wherein aa7
is A or P.

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25. The immunogenic polypeptide of claim 24 wherein aa1 is S, aa2 is L and
aa7 is A.

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26. An immunogenic polypeptide comprising the amino acid sequence
aa1-aa2-aa3-aa4-aa5-aa6 (SEDI8NO:1)
wherein:

aa1 is S, G, A, D, K, R or T;

aa2 is L, F, I, M or W;

aa3 is F or L;

aa4 is any amino acid;

aa5 is any amino acid; and

aa6 is G or A,

provided that the motif is not contained within a known 31 amino acid
5 sequence of a naturally-occurring E2HV domain of an HCV isolate known as of May
12, 1993.

10 27. A vaccine comprising at least one immunogenic polypeptide of claim 21
and a pharmaceutically acceptable carrier.

28. A vaccine comprising at least one immunogenic polypeptide of claim 22
and a pharmaceutically acceptable carrier.

15 29. A vaccine comprising at least one immunogenic polypeptide of claim 23
and a pharmaceutically acceptable carrier.

30. A vaccine comprising at least one immunogenic polypeptide of claim 24
and a pharmaceutically acceptable carrier.

20 31. A vaccine comprising at least one immunogenic polypeptide of claim 25
and a pharmaceutically acceptable carrier.

25 32. The vaccine of claim 27 wherein the immunogenic polypeptide is a
polypeptide from the E2HV region of HCV having from about 10 to about 20 amino
acid residues.

33. The vaccine of claim 32 wherein the polypeptide has from about 12 to 15
amino acid residues.

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34. The vaccine of claim 33 wherein the E2HV region is from HCV1.
35. The vaccine of claim 27 further comprising an adjuvant.
- 5 36. The vaccine of claim 35 wherein the adjuvant is Complete Freund's Adjuvant.
37. The vaccine of claim 35 wherein the adjuvant is alum.
- 10 38. A method of treating an individual for HCV infection comprising administering to the individual the vaccine of claim 27.
39. An immunoassay method for detecting anti-hepatitis C virus (HCV) antibodies in a biological sample, the method comprising:
- 15 (a) incubating an antibody-containing biological sample suspected of containing anti-HCV antibodies with a probe antigen comprising the immunogenic polypeptide of claim 21 to permit the formation of an antibody-antigen complex; and
- (b) detecting the antibody-antigen complex containing the probe antigen.

add
(+1)

add
m2

Add N5